

Practitioner's Docket No. U 015530-0

PATENT

TRANSMITTAL LETTER TO THE U.S. DESIGNATED OFFICE (DO/US)–  
ENTRY INTO THE U.S. NATIONAL STAGE UNDER CHAPTER I

|                               |                           |                       |
|-------------------------------|---------------------------|-----------------------|
| INTERNATIONAL APPLICATION NO. | INTERNATIONAL FILING DATE | PRIORITY DATE CLAIMED |
| PCT/IB03/02518                | 10 JUNE 2003              | 13 JUNE 2002          |
| TITLE OF INVENTION            |                           |                       |

## REACTION CHAMBER

## APPLICANT(S)

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Commissioner for Patents  
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Optional Customer No. Bar Code



00140

PATENT TRADEMARK OFFICE

ATTENTION: DO/US

NOTE: The time period for commencement of the national stage in the U.S. does not depend upon whether a Demand under PCT Article 31 has been filed. It is no longer necessary to provide separately for the time period for filing the documents and fees required by 35 U.S.C. 371(c) for an: (1) application in which a Demand under Article 31 has not been filed within nineteen months from the priority date and (2) applications in which a Demand under Article 31 has been filed within nineteen months from the priority date.

NOTE: The completion of those filing requirements that can be made at a time later than 20 months from the priority date results from the Commissioner exercising his judgment under the authority granted under 35 U.S.C. 371(d). The filing receipt will show the actual date of receipt of the last item completing the entry into the national phase. See 37 C.F.R. 1.491, which states: "An international application enters the national stage when the applicant has filed the documents and fees required by 35 U.S.C. 371(c) within the periods set forth in § 1.494 and § 1.495."

## CERTIFICATION UNDER 37 C.F.R. 1.10\*

(Express Mail label number is mandatory.)

(Express Mail certification is optional.)

I hereby certify that this paper, along with any document referred to, is being deposited with the United States Postal Service on this date DECEMBER 10, 2004, in an envelope as Express Mail Post Office to Addressee, "mailing Label Number EV 481671870 US", addressed to the: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

GERALDINE MARTI

(type or print name of person mailing paper)

Signature of person mailing paper

**WARNING:** Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

**\*WARNING:** Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

**WARNING:** *Where the items are those that can be submitted to complete the entry of the international application into the national phase subsequent to 20 months from the priority date, the application is still considered to be in the international stage. And if mailing procedures are utilized to obtain a date the express mail procedure of 37 C.F.R. 1.10 must be used (because international application papers are not covered by an ordinary certificate of mailing. 37 C.F.R. 1.8(2)(xi)).*

**WARNING:** *Documents and fees must be clearly identified as a submission to enter the national stage under 35 U.S.C. § 371, otherwise the submission will considered as being made under 35 U.S.C. § 111. 37 C.F.R. § 1.494(g).*

**WARNING:** *Abandonment is governed by 37 C.F.R. § 1.495 as follows:*

*37 C.F.R. § 1.495*

*(h) An international application becomes abandoned as to the United States thirty months from the priority date if the requirements of paragraph (b) of this section have not been complied with within thirty months from the priority date. If the requirements of paragraph (b) of this section are complied with within thirty months from the priority date but either of any required translation of the international application as filed or the oath or declaration are not timely filed, an international application will become abandoned as to the United States upon expiration of the time period pursuant to paragraph (c) of this section.*

*37 C.F.R. § 1.495*

*(b) To avoid abandonment of the application, the applicant shall furnish to the United States Patent and Trademark Office not later than the expiration of thirty months from the priority date:*

*(1) A copy of the international application, unless it has been previously communicated by the International Bureau or unless it was originally filed in the United States patent and Trademark Office; and*

*(2) The basic national fee (see § 1.492a)).*

1. Applicant herewith submits to the United States Designated Office (DO/US) the following items under 35 U.S.C. 371:

- a. ☒ This express request to immediately begin national examination procedures (35 U.S.C. 371(f)).
- b. ☒ The U.S. National Fee (35 U.S.C. 371(c)(1)) and other fees (37 C.F.R. 1.492), as indicated below:
- c. ☐ **ADDED PAGES FOR APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED**

## 2. Fees

| CLAIMS FEE*      | (1) FOR  | (2) NUMBER FILED | (3) NUMBER EXTRA | (4) RATE    | (5) CALCULATIONS                      |
|------------------|--|------------------|------------------|-------------|---------------------------------------|
|                  | TOTAL CLAIMS *   | 22 -20=          | 2                | x\$ 50.00=  | \$ 100.00<br>NOT PAID<br>AT THIS TIME |
|                  | INDEPENDENT CLAIMS *   | 2 -3=            |                  | x\$ 200.00= |                                       |
|                  | MULTIPLE DEPENDENT CLAIMS(S) (if applicable) + \$360.00  |                  |                  |             | NOT PAID<br>AT THIS TIME              |
| BASIC FEE**      |  |                  |                  |             | \$300.00                              |
|                  | Total of above Calculations  |                  |                  |             | 300                                   |
| SMALL ENTITY *** | Reduction by ½ for filing by small entity, if applicable. Statement may also be filed. (note 37 CFR 1.9, 1.27, 1.28)                                   |                  |                  |             | -                                     |
|                  | Subtotal   |                  |                  |             | 300.00                                |
|                  | Total National Fee   |                  |                  |             | \$300.00                              |
|                  | Fee for recording the enclosed assignment document \$40.00 (37 CFR 1.21(h)). (See Item 10 below). See attached "ASSIGNMENT COVER SHEET (37 CFR 3.34)". |                  |                  |             |                                       |
| TOTAL            | Total Fees enclosed  |                  |                  |             | \$300.00                              |

\*May include Preliminary Amendment (see page 7) reducing the number of claims.

**\*\*WARNING:** "To avoid abandonment of the application, the applicant shall furnish to the United States Patent and Trademark Office not later than the expiration of 20 months from the priority date; . . . (2) the basic national fee (see § 1.492(a)). The 20-month time limit may not be extended." 37 C.F.R. § 1.495(b).

\*\*\* Small Entity Assertion:

[ ] **Assertion of Small Entity Status**

**Applicant hereby asserts status as a small entity under 37 C.F.R. § 1.27 by:**

[ ] **Written Assertion or Statement attached**

[ ] **Fee payment herewith**

**NOTE:** 37 C.F.R. § 1.27(c) deals with the assertion of small entity status; whether by a written specific declaration thereof or by payment as a small entity of the basic filing fee or the fee for the entry into the national phase and states:

*"(c) Assertion of small entity status. Any party (person, small business concern or nonprofit organization) should make a determination, pursuant to paragraph (f) of this section, of entitlement to be accorded small entity status based on the definitions set forth in paragraph (a) of this section, and must, in order to establish small entity status for the purpose of paying small entity fees, actually make an assertion of entitlement to small entity status, in the manner set forth in paragraphs (c)(1) or (c)(3) of this section, in the application patent in which such small entity fees are to be paid.*

*(1) Assertion by writing. Small entity status may be established by a written assertion of entitlement to small entity status. A written assertion must:*

*(i) Be clearly identifiable;*

*(ii) Be signed (see paragraph (c)(20) of this section); and*

*(iii) Convey the concept of entitlement to small entity status, such as by stating that applicant is a small entity, or that small entity status is entitled to be asserted for the application or patent. While no specific words or wording are required to assert small entity status, the intent to assert small entity status must be clearly indicated in order to comply with the assertion requirement.*

*(2) Parties who can sign and file the written assertion. The written assertion can be signed by:*

*(i) One of the parties identified in § 1.33(b) (e.g., an attorney or agent registered with the Office), § 3.73(b) of this chapter notwithstanding, who can also file the written assertion;*

*(ii) At least one of the individuals identified as an inventor (even though a § 1.63 executed oath or declaration has not been submitted), notwithstanding § 1.33(b)(4), who can also file the written assertion pursuant to the exception under § 1.33(b) of this part; or*

*(iii) An assignee of an undivided part interest, notwithstanding §§ 1.33(b)(3) and 3.73(b) of this chapter, but the partial assignee cannot file the assertion without resort to a party identified under § 1.33(b) of this part.*

*(3) Assertion by payment of the small entity basic filing or basic national fee. The payment, by any party, of the exact amount of one of the small entity basic filing fees set forth in §§ 1.16(a), (f), (g), (h), or (k), or one of the small entity basic national fees set forth in §§ 1.492(a)(1), (a)(2), (a)(3), (a)(4), or (a)(5), will be treated as a written assertion of entitlement to small entity status even if the type of basic filing or basic national fee is inadvertently selected in error.*

*(i) If the Office accords small entity status based on payment of a small entity basic filing or basic national fee under paragraph (c)(3) of this section that is not applicable to that application, any balance of the small entity fee that is applicable to that application will be due along with the appropriate surcharge set forth in § 1.16(e), or § 1.16(l).*

*(ii) The payment of any small entity fee other than those set forth in paragraph (c)(3) of this section (whether in the exact fee amount or not) will not be treated as a written assertion of entitlement to small entity status and will not be sufficient to establish small entity status in an application or a patent."*

- i. ☒ [X] A check in the amount of \$ 300.00 to cover the above fees is enclosed.
- ii. ☐ [ ] Please charge Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_.  
A duplicate copy of this sheet is enclosed.

**WARNING:** *If the translations of the international application, oath or declaration and national fee have not been submitted by the applicant within twenty (20) months from the priority date, the applicant will be so notified and given a period of time within which to file the translation and/or oath or declaration in order to prevent abandonment. The payment of the surcharge set forth in § 1.492(e) is required as a condition for accepting the oath or declaration later than twenty (20) months after the priority date. The payment of the processing fee set forth in § 1.492(f) is required for acceptance of an English translation later than twenty (20) months after the priority date. Failure to comply with these requirements will result in abandonment of the application.*

3. A copy of the International application as filed (35 U.S.C. 371(c)(2)):
- a. ☐ [ ] is transmitted herewith.
- b. ☐ [ ] is not required, as the application was filed with the United States Receiving Office.
- c. ☒ [X] has been transmitted
- i. ☒ [X] by the International Bureau. Date of mailing of the application from form PCT/IB/308): \_\_\_\_\_.
- ii. ☐ [ ] by applicant on \_\_\_\_\_.  
Date

**NOTE:** *Section 1.495(b)(1) requires that the basic national fee and a copy of the international application must be filed with the Office by 30 months from the priority date to avoid abandonment. "The International Bureau nominally provides the copy of the international application to the Office in accordance with PCT Article 20. At the same time, the International Bureau notifies the applicant of the communication to the Office. In accordance with PCT Rule 47.1, that notice shall be accepted by all designated offices as conclusive evidence that the communication has duly taken place. Thus, if the applicant desires to enter the national stage and applicant has received notice from the International Bureau, applicant need only pay the basic national fee by 30 months from the priority date." Notice of Jan. 7, 1993, 1147 O.G. 29 to 40, at 35.*

4. A translation of the International application (including drawing, if any) into the English language (35 U.S.C. 371(c)(2)):
- a. ☐ [ ] is transmitted herewith.
- b. ☐ [ ] will follow
- c. ☒ [X] is not required as the application was filed in English.
- d. ☐ [ ] was previously transmitted by applicant on \_\_\_\_\_.  
Date

**NOTE:** *37 C.F.R. § 1.495(c): "If applicant complies with paragraph (b) of this section before expiration of thirty months from the priority date but omits . . . a translation of the international application, as filed, into the English language, if it was originally filed in another language (35 U.S.C. 371(c)(2)) . . . applicant will be so notified and given a period of time within which to file the translation . . . in order to prevent abandonment of the application. The payment of the processing fee set forth in § 1.492(f) is required for acceptance of an English translation later than the expiration of thirty months after the priority date . . . A 'Sequence Listing' need not be translated if the 'Sequence Listing' complies with PCT Rule 12.1(d) and the description complies with PCT Rule 5.2(b)".*

5. ☒ Amendments to the claims of the International application under PCT Article 19 (35 U.S.C. 371(c)(3)):

*NOTE: 37 C.F.R. § 1.495(d): "A copy of any amendments to the claims made under PCT Article 19, and a translation of those amendments into English, if they were made in another language, must be furnished not later than the expiration of thirty months from the priority date. Amendments under PCT Article 19 which are not received by the expiration of thirty months from the priority date will be considered to be canceled."*

*NOTE: The Notice of January 7, 1993 indicates that 37 C.F.R. § 1.494(d) was "amended to clarify the existing practice that PCT Article 19 Amendments must be submitted by 20 months from the priority date, which time may not be extended." This Notice further advises: "Of course, the failure to do so does not result in loss of the subject matter of PCT Article 19 amendments. The applicant may submit that subject matter in a preliminary amendment filed under Section 1.121. In many cases, filing an amendment under Section 1.121 is preferable since grammatical or idiomatic errors may be corrected." 1147 O.G. 29-40, at 35. See item 11(c) below.*

- a. ☐ are transmitted herewith.
- b. ☐ have been transmitted
- i. ☐ by the International Bureau. Date of mailing of the amendment (from form PCT/IB/308): \_\_\_\_\_.
- ii. ☐ by applicant on \_\_\_\_\_.
- Date
- c. ☒ have not been transmitted, as
- i. ☐ no notification has been received that the International Search Authority has received the Search Copy.
- ii. ☒ the Search Copy was received by the International Searching Authority, but the Search Report has not yet been issued. Date of receipt of Search Copy from form PCT/ISA/202) 4 NOVEMBER 2003.
- iii. ☐ applicant chose not to make amendments under PCT Article 19. Date of mailing of Search Report (from form PCT/ISA/210): \_\_\_\_\_.
- iv. ☐ the time limit for the submission of amendments has not yet expired. The amendments, or a statement that amendments have not been made, will be transmitted before the expiration of the time limit under PCT Rule 46.1.
6. ☒ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)):
- a. ☐ is transmitted herewith.
- b. ☐ is not required as the amendments were made in the English language.
- c. ☒ has not been transmitted for reasons indicated at point 5(c) above.
7. ☒ An oath or declaration of the inventor (35 U.S.C. 371(c)(4)) complying with 35 U.S.C. 115
- a. ☐ was previously submitted by applicant on \_\_\_\_\_.
- Date
- b. ☐ is submitted herewith, and such oath or declaration
- i. ☐ is attached to the application.
- ii. ☐ identifies the application and any amendments under PCT Article 19 that were transmitted as stated in points 3(b) or (c) and 5(b); and states that they were reviewed by the inventor, as required by 37 C.F.R. 1.70.
- c. ☒ will follow.

*Note: 37 C.F.R. § 1.495(c): "If applicant complies with paragraph (b) of this section before expiration of thirty months from the priority date but omits . . . the oath or declaration of the inventor (35 U.S.C. 371(c)(4) and § 1.497), if a declaration of inventorship in compliance with § 1.497 has not been previously submitted in the international application under PCT Rule 4.17(iv) within the time limits provided for in PCT Rule 26ter.1, applicant will be so notified and given a period of time within which to file the . . . oath or declaration in order to prevent abandonment of the application. . . . The payment of the surcharge set forth in § 1.492(e) is required for acceptance of the oath or declaration of the inventor later than the expiration of thirty months after the priority date."*

**II. Other document(s) or information included:**

8. ☒ An international Search Report or Declaration under PCT Article 17(2)(a):
  - a. ☒ is transmitted herewith.
  - b. ☐ has been transmitted by the International Bureau. Date of mailing from form PCT/IB/308): \_\_\_\_\_.
  - c. ☐ is not required, as the application was searched by the United States International Searching Authority.
  - d. ☐ will be transmitted promptly upon request.
  - e. ☐ has been submitted by applicant on \_\_\_\_\_.  
Date
  - f. ☐ is not transmitted, as the international search has not yet issued.
  
9. ☒ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98:
  - a. ☒ is transmitted herewith.  
Also transmitted herewith is (are)
    - ☒ Form PTO-1449 (PTO/SB/08A and 08B)
    - ☒ Copies of citations listed
  - b. ☐ will be transmitted within THREE MONTHS of the date of submission of requirements under 35 U.S.C. 371(c).

*NOTE: 37 C.F.R. § 1.97*

*"(b) An Information disclosure statement shall be considered by the Office if filed by the applicant within any one of the following time periods:*

*\*\*\**  
*(2) Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application.*

- c. ☐ was previously submitted by applicant on \_\_\_\_\_.  
Date

**WARNING:** 1893.03(g) Information Disclosure Statement in a National Stage Application

*"When an international application is filed under the Patent Cooperation Treaty (PCT), prior art documents may be cited by the examiner in the international search report and/or the international preliminary examination report. When a national stage application is filed under 35 U.S.C. 371, or a national application is filed under 35 U.S.C. 111 claiming benefit of the filing date of the international application, it is often desirable to have the examiner consider the documents cited in the international application when examining the national application.*

*"As a result of an agreement among the European Patent Office (EPO), Japanese Patent Office (JPO), and the United States Patent and Trademark Office (USPTO), copies of documents cited in the international search report issued by any one of these International Search Authority Offices generally are being sent to the other Offices when designated in the international application. Accordingly, in many national stage applications where the international search was conducted by the EPO, JPO, or USPTO, copies of the documents cited in the international search report are made available to the examiner in the national stage application.*

*"When all the requirements for a national stage application have been completed, applicant is*

*notified (form PCT/DO/EO/903) of the acceptance of the application under 35 U.S.C. 371, including an itemized list of the items received. The itemized list includes an indication of whether a copy of the international search report and copies of the references cited therein are present in the national stage file. The examiner will consider the documents cited in the international search report, without any further action by applicant under 37 CFR 1.97 and 1.98, when both the international search report and copies of the documents are indicated to be present in the national stage file. The examiner will note the consideration in the first Office action. There is no requirement that the examiners list the documents on a PTO-892 form. See form paragraphs 6.53, 6.54, and 6.55 (reproduced in MPEP § 609). Otherwise, applicant must follow the procedure set forth in 37 CFR 1.97 and 1.98 in order to ensure that the examiner considers the documents cited in the international search report.*

*"This practice applies only to documents cited in the international search report relative to a national stage application filed under 35 U.S.C. 371. It does not apply to documents cited in an international preliminary examination report that are not cited in the search report. It does not apply to applications filed under 35 U.S.C. 111(a) claiming the benefit of an international application filing date."*

10.    ☐    An assignment document is transmitted herewith for recording. A separate
- ☐    "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW
- ☐    PATENT APPLICATION" or
- ☒    FORM PTO—1595
- is also attached.
- ☐    Please mail the recorded assignment document to:
- i.        ☐    the person whose signature and address appears below.
- ii.       ☐    the following:
11.    ☒    Additional documents
- a.       ☒    Copy of request (PCT/RO/101)
- b.       ☒    International Publication No. WO 03/106033 A1
- i.        ☒    Specification, claims and drawing
- ii.       ☐    Front page only
- c.       ☐    Preliminary amendment (37 C.F.R. § 1.121)
- d.       ☒    Other

FORM PCT/IB/301  
FORM PCT/IB/304

12.    ☒    The above checked items are being transmitted
- a.       ☐        before the 18th month publication.
- b.       ☐        after publication and the article 20 communication, but before 30 months
- from the priority date.
- c.       ☐        after 20 months (revival).

**NOTE:** *Petition to revive (37 C.F.R. 1.137(a) or (b)) is necessary if 35 U.S.C. 371 requirements are submitted after 20 months.*

13.    ☐    Certain requirements under 35 U.S.C. 371 were previously submitted by the
- applicant on \_\_\_\_\_ namely:
- Date



**AUTHORIZATION TO CHARGE ADDITIONAL FEES**

**WARNING:** *Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges if extra claims are authorized.*

**NOTE:** *"A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 CFR 1.136(a)(3).*

**NOTE:** *"Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 CFR 1.26(a).*

☒ The Commissioner is hereby authorized to charge the following additional fees that may be required by this paper and during the entire pendency of this application to Account No. 12-0425.

☒ 37 C.F.R. 1.492(a)(1), (2), (3), and (4) (filing fees)

**WARNING:** *Because failure to pay the national fee within 20 months without extension (37 C.F.R. § 1.494(b)(2)), results in abandonment of the application, it would be best to always check the above box.*

☐ 37 C.F.R. 1.492(b), (c), and (d) (presentation of extra claims)

**NOTE:** *Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment, prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.*

☒ 37 C.F.R. 1.17 (application processing fees)

☒ 37 CFR 1.17(a)(1)-(5)(extension fees pursuant to § 1.136(a).

☒ 37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311(b)).

**NOTE:** *Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. 1.311(b).*

**NOTE:** *37 C.F.R. 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying or at the time of paying . . . issue fee..." From the wording of 37 C.F.R. 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.*

☐ 37 C.F.R. 1.492(e) and (f) (surcharge fees for filing the declaration and/or filing an English translation of an International Application later than 20 months after the priority date.

☒ Please credit any overpayments to deposit account 12-0425.

Reg. No. 25,858

Tel. No.: (212)708-1930

Customer No.: 00140

  
SIGNATURE OF PRACTITIONER

WILLIAM R. EVANS

(type or print name of practitioner)

P.O. Address

c/o Ladas & Parry LLP  
26 West 61<sup>st</sup> Street  
New York, N.Y. 10023



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PATENT TRADEMARK OFFICE